

What Is Claimed Is:

1. A supply line structure to supply energy to electrical components of an automotive vehicle and to transmit information between at least some of the electrical components, the supply lines in particular being arranged in a star structure having at least one star point, wherein at least a portion of the supply lines (10) comprises a coaxial arrangement of a plurality of outer litz wires (4) disposed about a central flexible lead (2).
2. The supply line structure, wherein the outer litz wires (4) are short-circuited with respect to each other via high-frequency technology using capacitors (6).
3. The supply line structure as recited in Claim 2, wherein the outer litz wires (4) are shorted-circuited with respect to each other using high-frequency technology at both ends of the supply line being considered (10) using capacitors (6).
4. The supply line structure, wherein the central litz wire (2) is connected, preferably at both of its ends, to the vehicle body (12).
5. The supply line structure, wherein a supply line (10) passes through an annular core (8) made with ferritic material (common mode coil).
6. The supply line structure, wherein the supply line (10) encircles the annular core (8) at least one time.
7. The supply line structure as recited in Claim 5 or 6, wherein on the generator side, the supply line (10) passes through an annular core (8) made with ferritic material.
8. The supply line structure, wherein one central litz wire (2) and 5-10, particularly 5-8, outer litz wires (4) are provided.

9. The supply line structure,
wherein the litz wires (2, 4) have a cross-sectional area of 2-3 mm².

10. The supply line structure,
wherein the coaxial arrangement of the plurality of outer litz wires (4) about the central litz wire (2) has a characteristic impedance of 35-50 ohms.

11. The supply line structure,
wherein the coaxial arrangement of the plurality of outer litz wires (4) about the central litz wire (2) has a transmission characteristic of -1.4 dB to -4.4 dB, in particular
-1.9 dB to -3.7 dB, in the frequency range between 100 and 250 MHz.